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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/669,745

09/24/2003

Robert J. Boisselle

1-15957

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MARSHALL & MELHORN, LLC
FOUR SEAGATE - EIGHTH FLOOR
TOLEDO, OH 43604

EXAMINER

LAZORCIK, JASON L

ART UNIT

PAPER NUMBER

1741

MAIL DATE

DELIVERY MODE

10/27/2010

PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT J. BOISSELLE,
DIETER FUNK, JOACHIM PILZ, and ANDREAS GORGES

Appeal 2009-013334
Application 10/669,745
Technology Center 1700

Before PETER F. KRATZ, MARK NAGUMO, and
KAREN M. HASTINGS, *Administrative Patent Judges*.

NAGUMO, *Administrative Patent Judge*.

DECISION ON APPEAL¹

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

A. Introduction²

Robert J. Boisselle, Dieter Funk, Joachim Pilz, and Andreas Gorges (“Boisselle”) timely appeal under 35 U.S.C. § 134(a) from the final rejection³ of claims 2-4, 8-16, 19, and 21.⁴ We have jurisdiction under 35 U.S.C. § 6. We REVERSE.

The subject matter on appeal relates to “press bending stations,” which are used to mold hot sheets of glass. In such devices, a hot sheet of glass is positioned between an essentially solid male mold, referred to in the art as a “full face mold,” and an annular female mold that contacts the hot glass sheet only at the edges. Prior art devices are said to hold the glass sheet against the full face mold by a partial vacuum created by suction holes, which are said to produce, as an unavoidable side-effect, local cooling zones that lead to undesired optical distortions. (Spec., para. bridging 3-4.) The claimed press bending stations are said to avoid the prior art problems by providing the male or full face mold with a peripheral groove that contains a plurality of through-holes, which are used to provide “negative pressure” to

² Application 10/669,745, *Press Bending Station for the Bending of Glass Sheets*, filed 24 September 2003. The specification is referred to as the “745 Specification,” and is cited as “Spec.” The real parties in interest are listed as Pilkington North America, Inc., and Pilkington Automotive Deutschland GmbH, which are wholly owned subsidiaries of Pilkington Group Ltd, which is a wholly owned subsidiary of Nippon Sheet Glass Co., Ltd of Japan. (Appeal Brief, filed 11 July 2007 (“Br.”), 3.)

³ Office action mailed 18 December 2006 (“Final Rejection”; cited as “FR”).

⁴ Pending claim 20 has not been appealed and hence is not before us. (Reply 2, 2d para.)

hold the glass sheet against the male mold. In some embodiments, positive pressure may be provided via the through-holes to push the formed glass sheet away from the face of the male mold after the glass has set.

Representative Claim 21 reads:

21. A press bending station for the bending of glass sheets, comprising:

a full-face mold having a mold face,

the mold face having at least one peripheral annular groove formed in the surface thereof,

the at least one peripheral annular groove having a plurality of holes located therein; and

an annular mold;

wherein, the at least one peripheral annular groove is formed in a peripheral area that corresponds to the molding contact area where a glass sheet is pressed between the full-face mold and the annular mold.

(Claims App., Br. 25; indentation, paragraphing, and emphasis added.)

Independent claim 19 is similar, the critical limitation being that “the first mold” is required to have “a major surface with at least one peripheral annular groove thereon.”

The Examiner has maintained the following grounds of rejection:⁵

- A. Claims 2-4, 9, 15, 16, 19, and 21 stand rejected under 35 U.S.C. § 103(a) in view of the combined teachings of Montonen⁶ and Posney.⁷

⁵ Examiner’s Answer mailed 18 October 2007. (“Ans.”).

⁶ Jori Montonen, *Press-Bending Method and Apparatus for Bending Glass Sheets*, U.S. Patent 5,383,947 (1995).

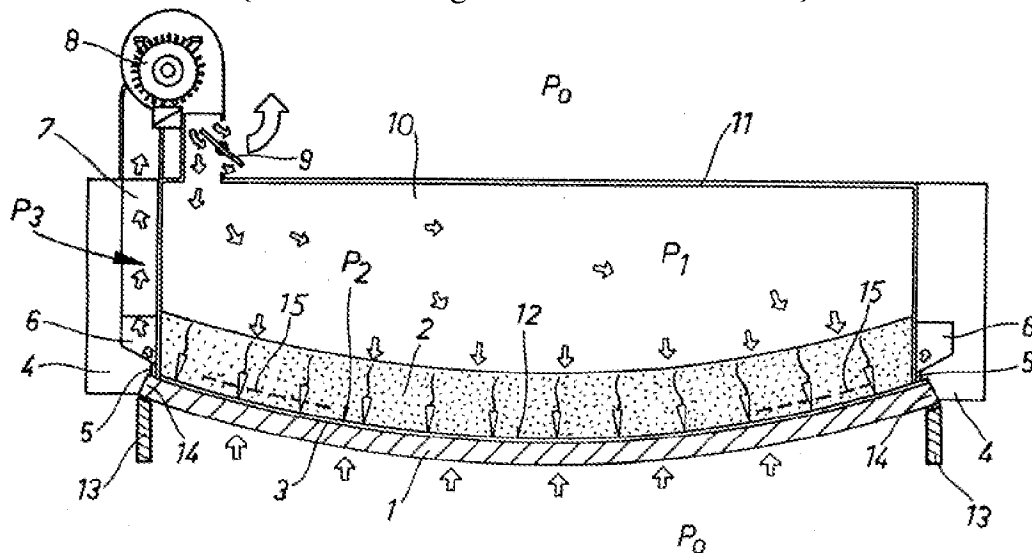
B. Claims 6, 8, and 10-14 stand rejected under 35 U.S.C. § 103(a) in view of the combined teachings of Montonen and Posney, and Yoshizawa.⁸

B. Discussion

Findings of fact throughout this Opinion are supported by a preponderance of the evidence of record.

Boisselle argues that the Examiner has mis-interpreted the crucial limitations of claims 19 and 21, namely, the nature of the first (or full face) mold having a peripheral annular groove “thereon” (claim 19) or “in the surface thereof” (claim 21). (Br. 9-10.) Montonen Figure 1, on which the Examiner bases the rejection, is reproduced below.

{Montonen Figure 1 is shown below:}



{Figure 1 shows a glass molding apparatus}

⁷ Richard V. Posney, *Apparatus for Shaping and Cooling Glass Sheets*, U.S. Patent 3,595,636 (1971)

⁸ Hideo Yoshizawa and Toru Kasugai, *Apparatus for Bending and Tempering Sheet Glass*, U.S. Patent 5,139,552 (1992).

In particular, Boisselle argues that Montonen does not teach that wall 4 is part of the surface of curved surface 12 of [porous] mould 2, and that wall 4 only provides a seal with edge 14 of glass sheet 1. Wall 4 does not, in Boisselle's view, form part of the pressing surface. (Br. 10, 1st para.) As a result, according to Boisselle, Montonen does not have an annular groove formed in the mould surface 12, as required by the appealed claims.

The Examiner maintains that mould 2 and wall 4 "collectively define such 'a major surface' or alternately 'a mold face.'" (Ans. 11, last para.) The narrow annular port 5, which opens via annular channel 6 to suction channel 7 and fan 8, meets, in the Examiner's view, the "groove" recited in claims 19 and 21. (*Id.*)

During prosecution of an application for patent, claims are to be given the broadest reasonable interpretation, when read from the perspective of a person having ordinary skill in the art in light of the specification, and limitations are not to be read from embodiments into the claims. *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

The plain language of the claims requires a peripheral annular groove "on" the major surface of the first mold (claim 19), or a mold face having a "peripheral annular groove *formed in the surface* thereof" (claim 21; emphasis added). The Examiner's attempts to read these limitations broadly as encompassing a space formed between two separate, independently movable parts of the apparatus described by Montonen, are in conflict with the plain meaning of the terms "on" and "in" a surface. Similarly, a "groove" ordinarily refers to an elongated depression in or on a unitary body.

Moreover, the 745 Specification teaches that “[t]ypically, in press bending, *an essentially solid male mold*, also known as a full-faced mold, forms one bending tool, while the other bending tool is designed as an annular or ring-type female mold.” (Spec. 1, ll. 10-13; emphasis added.) According to the 745 Specification, “[a]s used herein, full-face mold denotes a bending mold against which the glass sheet lies over its full area during bending, and annular mold denotes one which supports the glass sheet only at the edge during bending.” (*Id.* at 2, ll. 1-5.) The Examiner has not directed our attention to any disclosure in the 745 Specification that indicates that Boisselle sought to give the terms “in,” “on,” or “groove” idiosyncratically broad meanings.

The failure to interpret the claimed subject matter properly is sufficient ground to REVERSE the rejections of record.⁹

Moreover, as Boisselle points out (Br. 12, 2d full para.), the moulds described by Montonen are not slotted at the edges or elsewhere, as characterized by the Examiner (Ans. 6). Accordingly, the Examiner’s rationale of substituting one sort of “slot” for another is not supported by credible evidence of record. Nor has the Examiner provided a credible explanation of why the ridged structure of micro-electrodes shown by

⁹ We also note that the Examiner has rejected claims 9 and 15 in view of the combined teachings of Montonen and Posney, but that claims 9 and 15 depend from claims 6 and 8, which are not rejected over these references. Apparently the Examiner failed to note the claim dependence, and hence failed to apply 35 U.S.C. § 112(4), which states in relevant part, “A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.”

Posney is an adequate teaching, suggestion, or motivation to make corresponding structures via the embossing techniques taught by Montonen.

C. Order

We REVERSE the rejection of claims 2-4, 9, 15, 16, 19, and 21 under 35 U.S.C. § 103(a) in view of the combined teachings of Montonen and Posney.

We REVERSE the rejection of claims 6, 8, and 10-14 under 35 U.S.C. § 103(a) in view of the combined teachings of Montonen and Posney, and Yoshizawa.

REVERSED

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MARSHALL & MELHORN, LLC
FOUR SEAGATE - EIGHTH FLOOR
TOLEDO OH 43604